

FIG. 1A

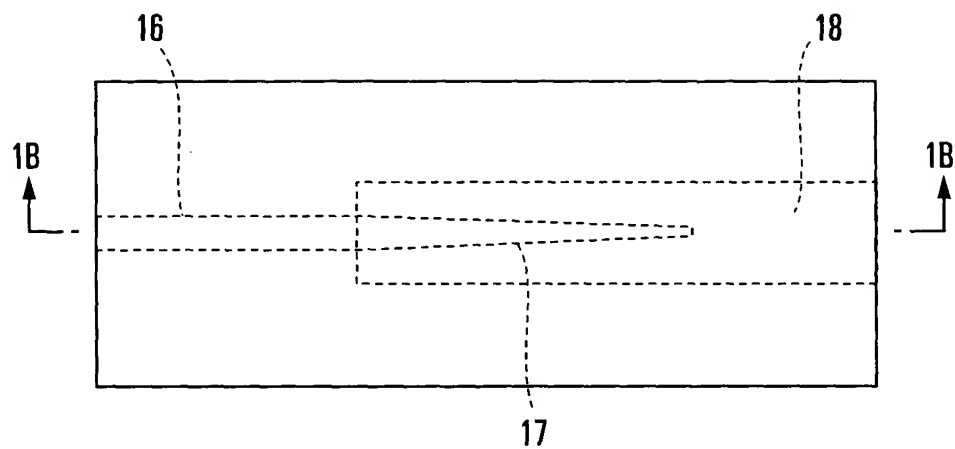


FIG. 1B

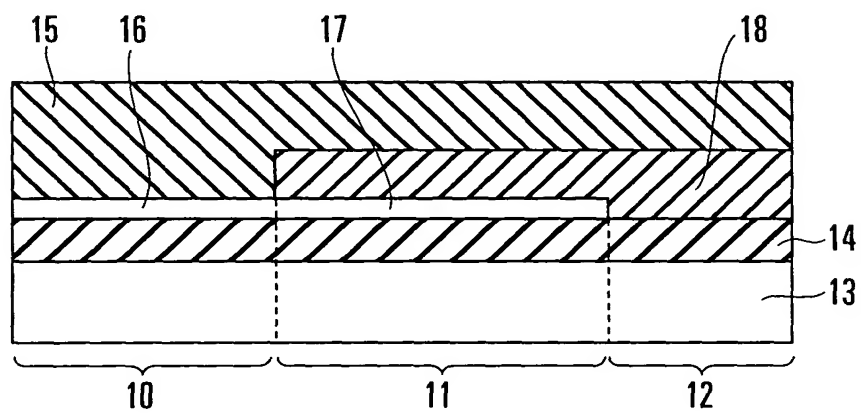


FIG. 2A

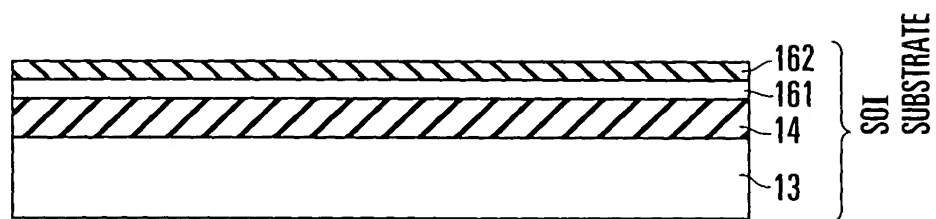


FIG. 2B

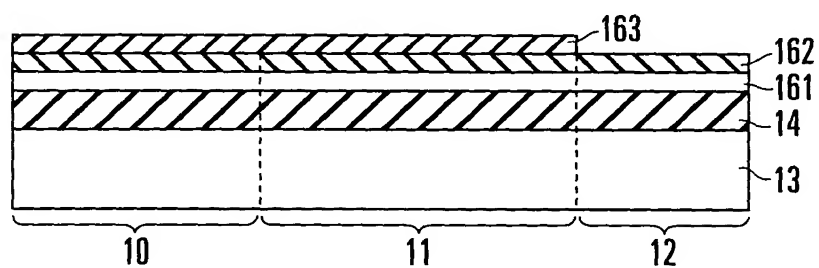


FIG. 2C

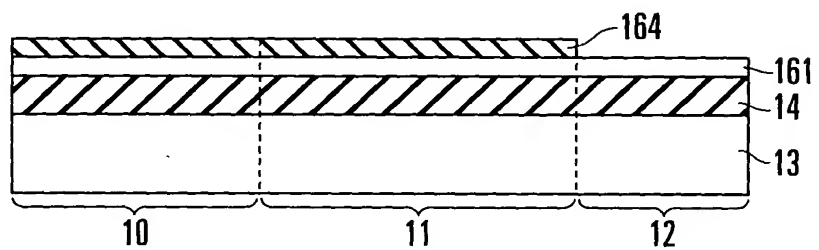


FIG. 2D

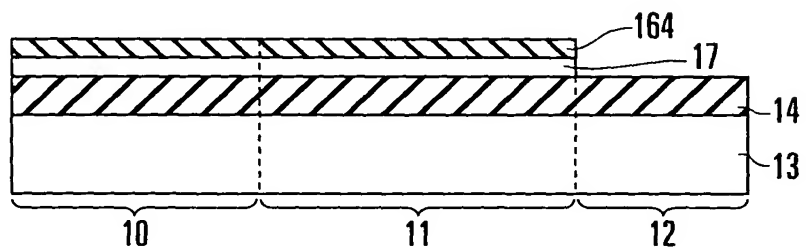


FIG. 2E

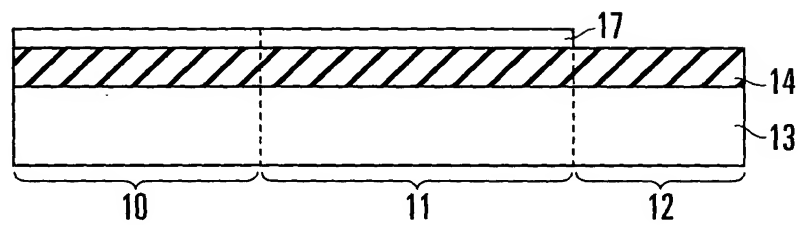


FIG. 2F

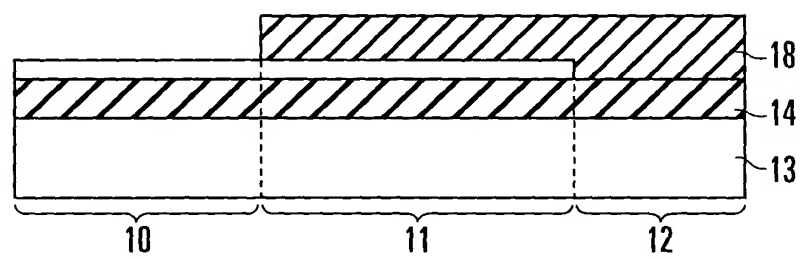


FIG. 2G

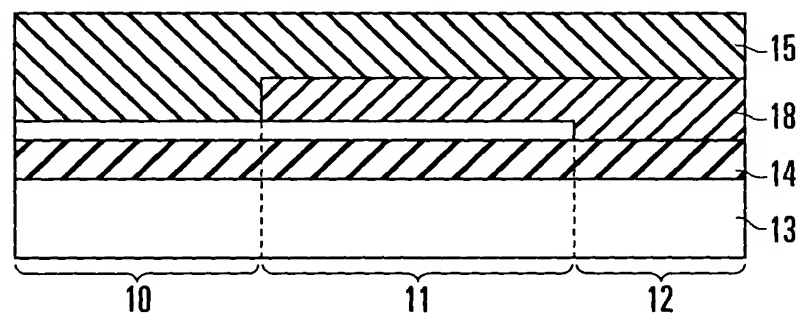


FIG. 3 A

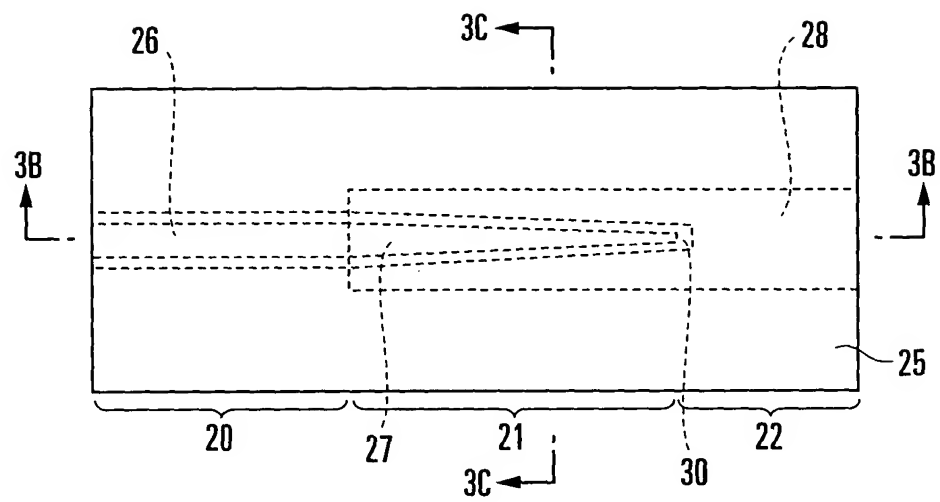


FIG. 3 B

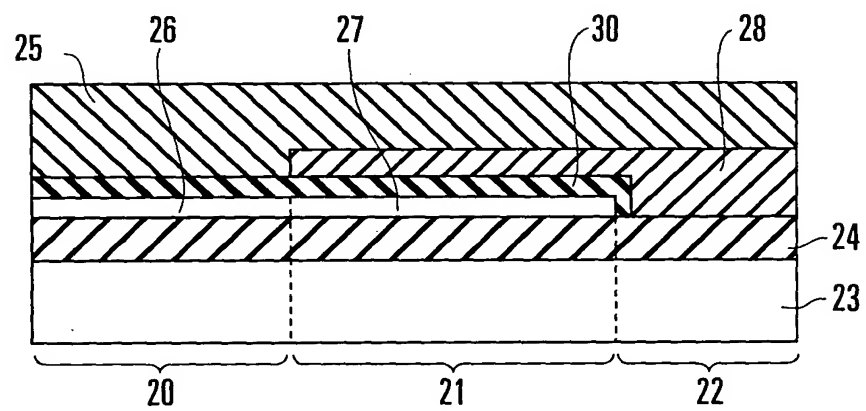


FIG. 3C

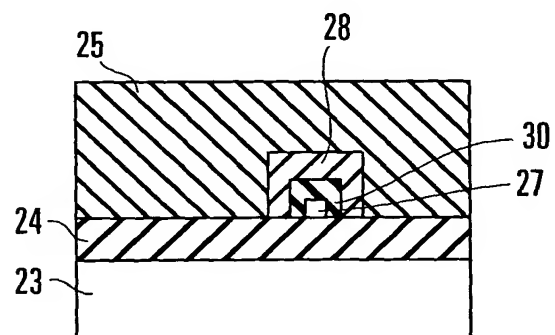


FIG. 4A

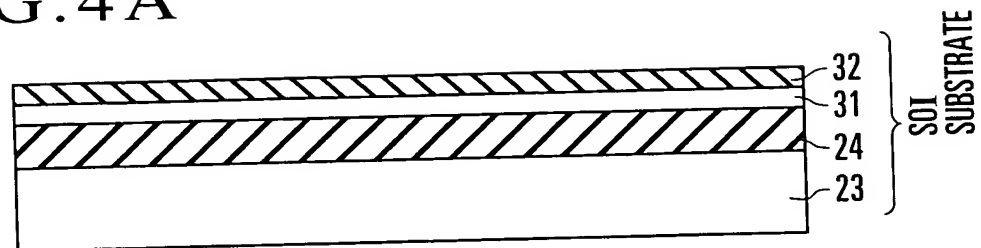


FIG. 4B

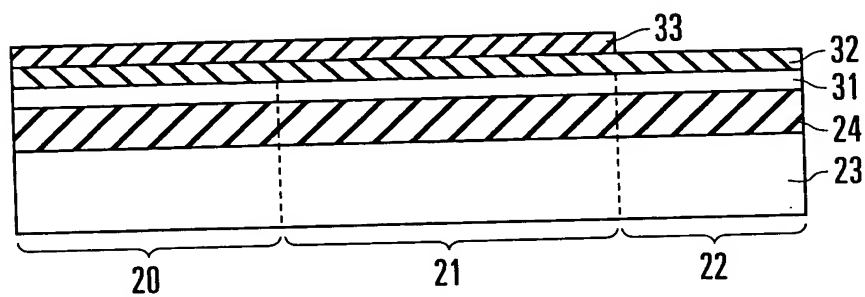


FIG. 4C

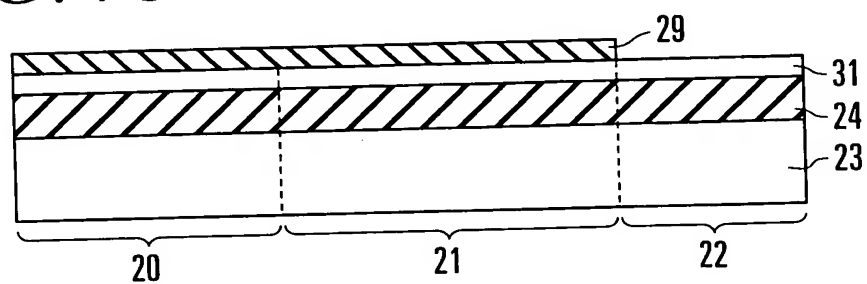


FIG. 4D

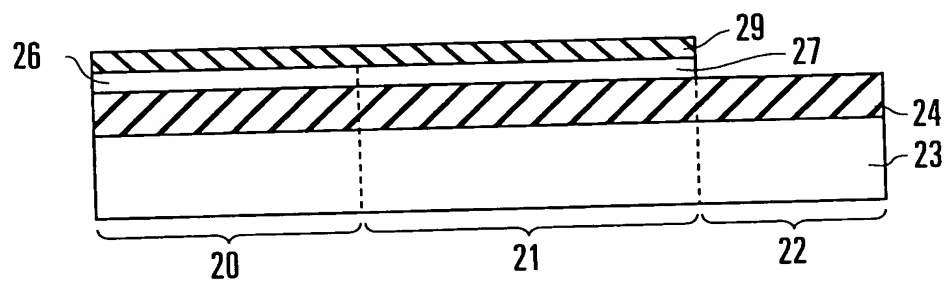


FIG. 4E

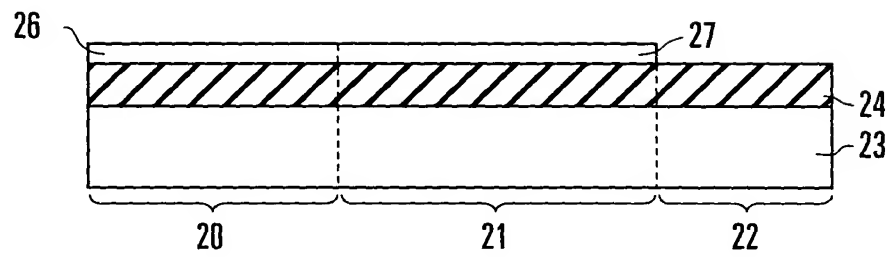


FIG. 4F

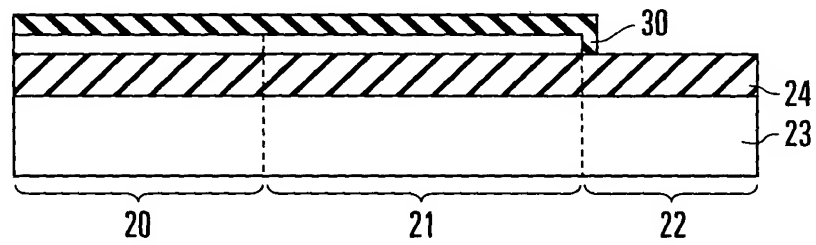


FIG. 4G

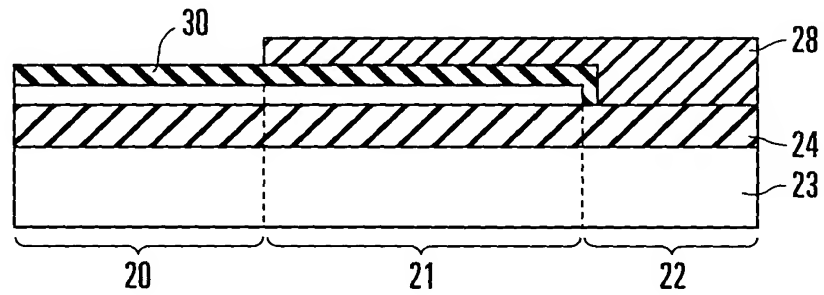
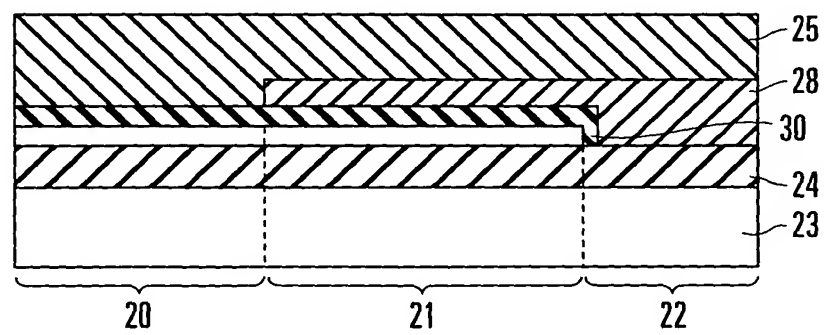
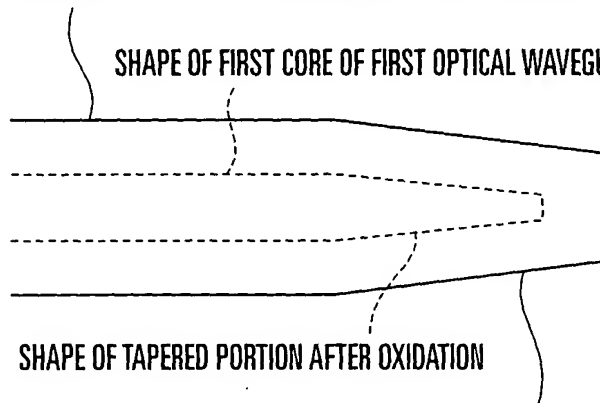


FIG. 4H



SHAPE OF FIRST CORE OF FIRST OPTICAL WAVEGUIDE BEFORE OXIDATION

SHAPE OF FIRST CORE OF FIRST OPTICAL WAVEGUIDE AFTER OXIDATION



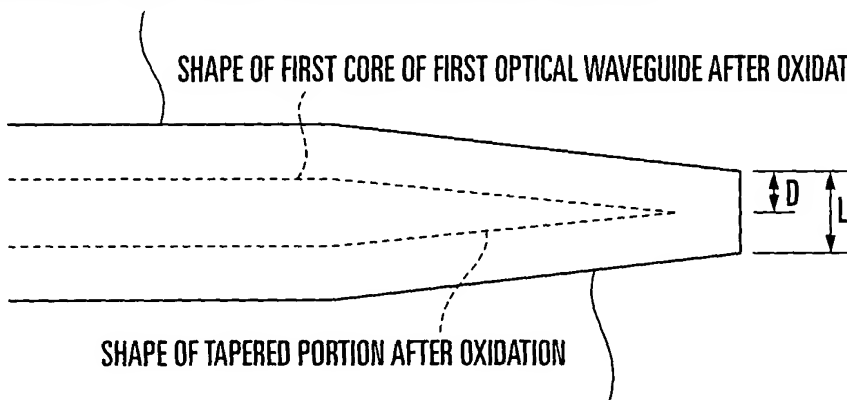
SHAPE OF TAPERED PORTION AFTER OXIDATION

SHAPE OF TAPERED PORTION AFTER OXIDATION BEFORE OXIDATION

FIG. 5

SHAPE OF FIRST CORE OF FIRST OPTICAL WAVEGUIDE BEFORE OXIDATION

SHAPE OF FIRST CORE OF FIRST OPTICAL WAVEGUIDE AFTER OXIDATION



SHAPE OF TAPERED PORTION AFTER OXIDATION

SHAPE OF TAPERED PORTION AFTER OXIDATION BEFORE OXIDATION

FIG. 6

FIG. 7A

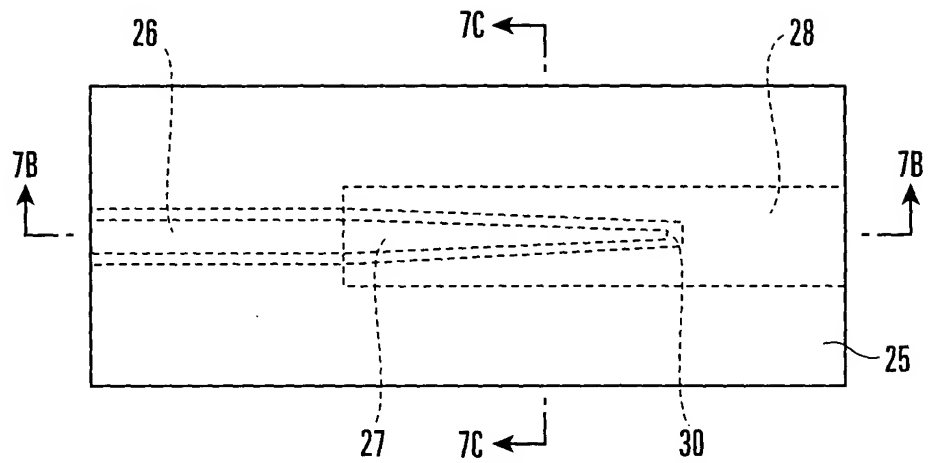


FIG. 7B

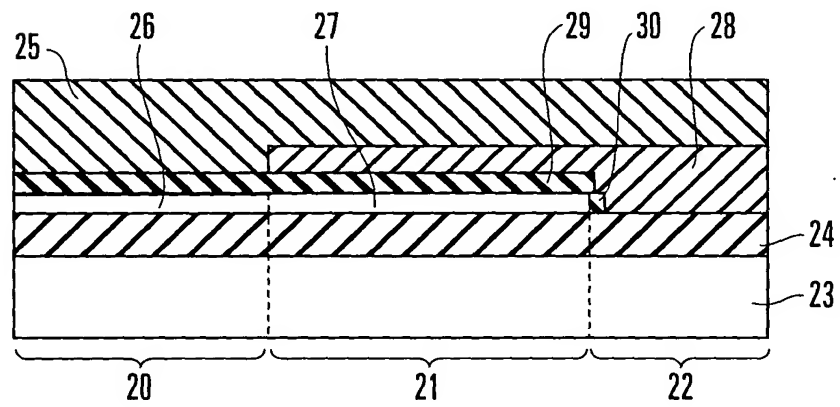


FIG. 7C

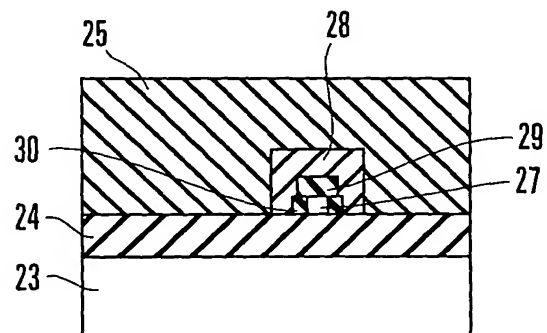




FIG. 8A

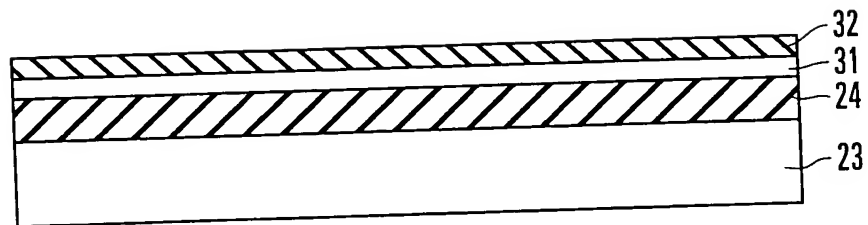


FIG. 8B

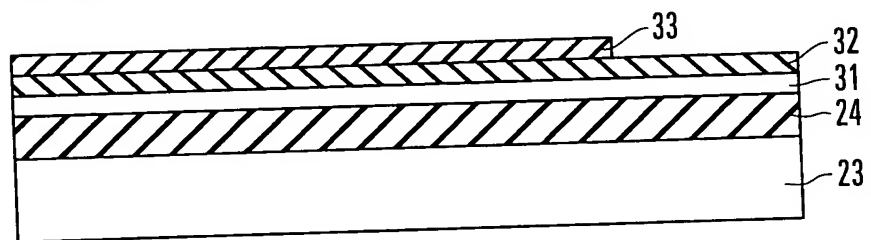


FIG. 8C

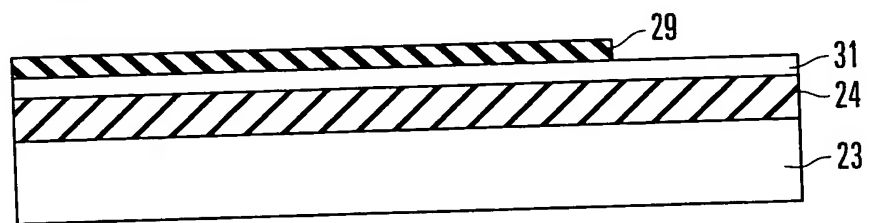


FIG. 8D

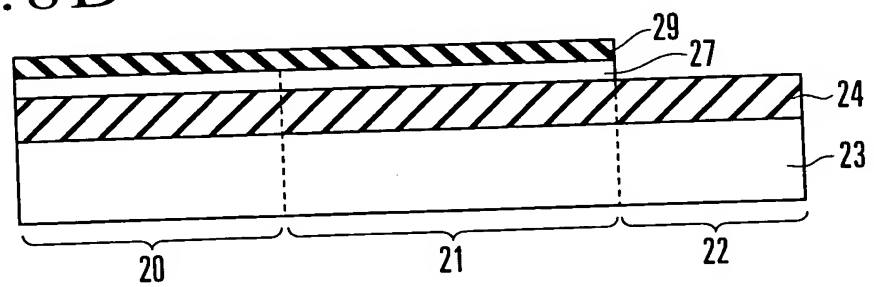


FIG. 8E

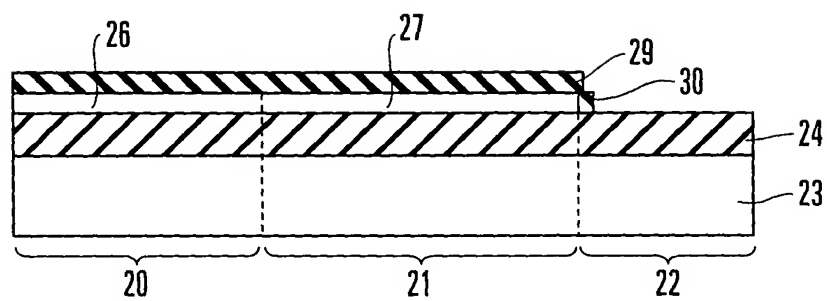


FIG. 8F

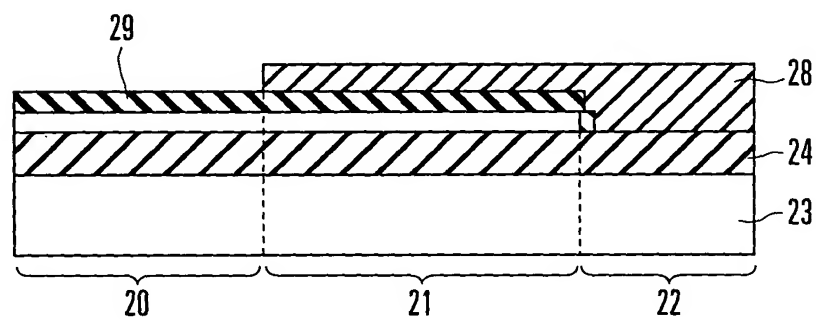


FIG. 8G

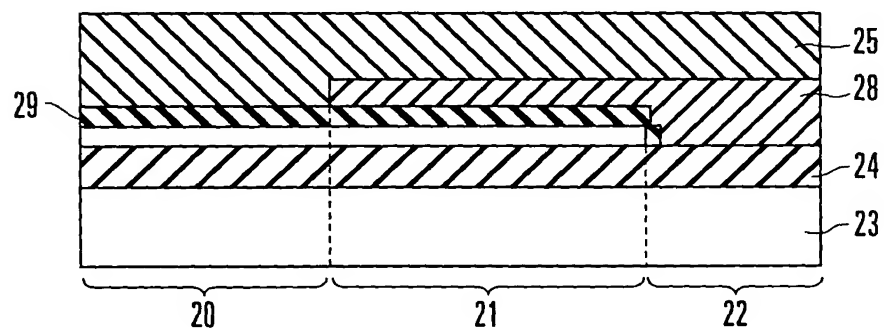


FIG. 9A

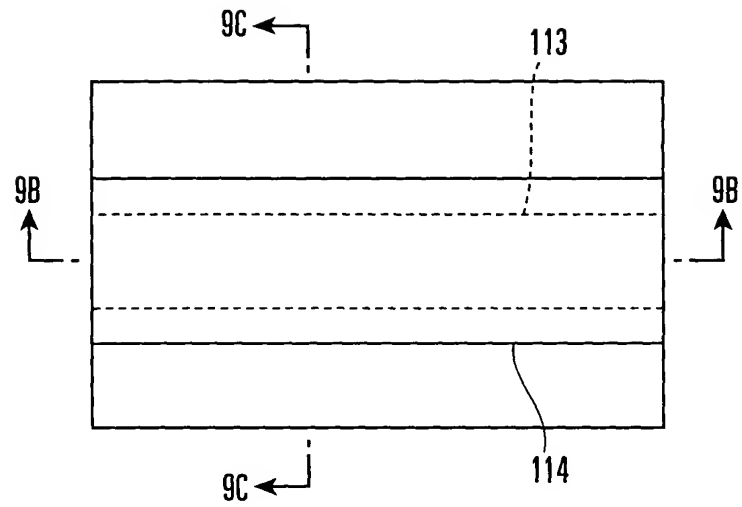


FIG. 9B

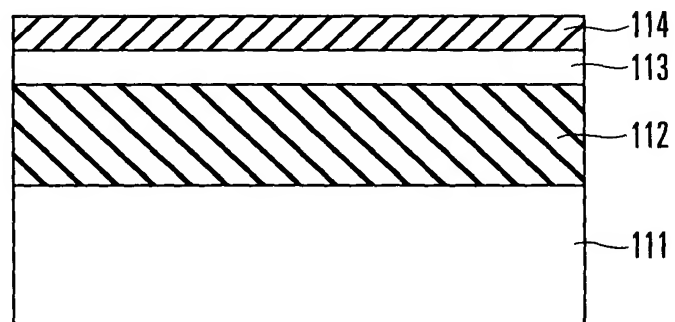


FIG. 9C

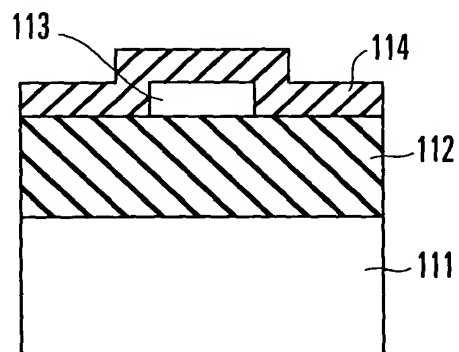


FIG. 10A

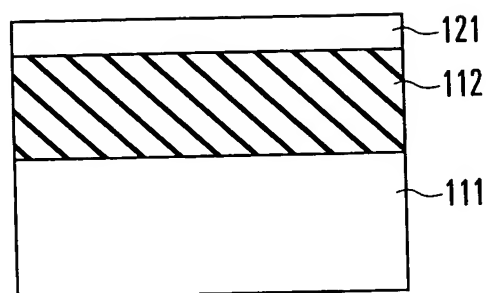


FIG. 10D

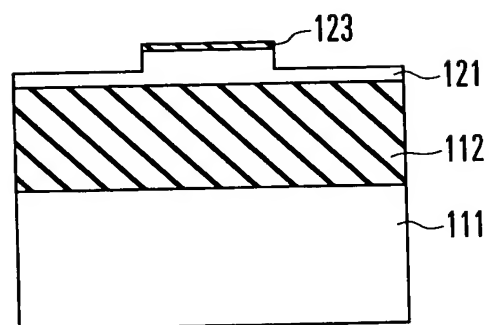


FIG. 10B

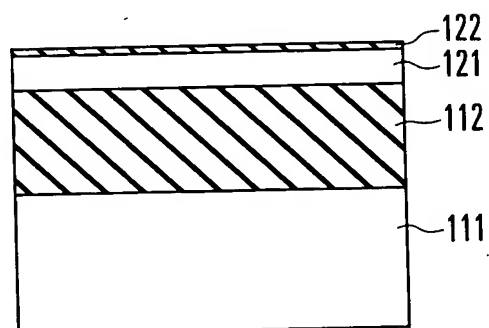


FIG. 10E

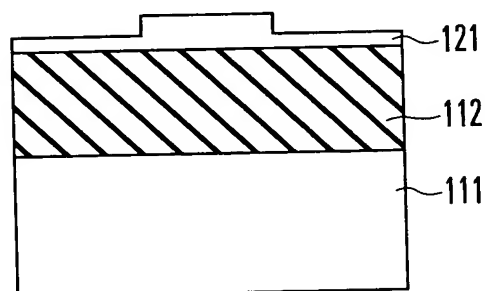


FIG. 10C

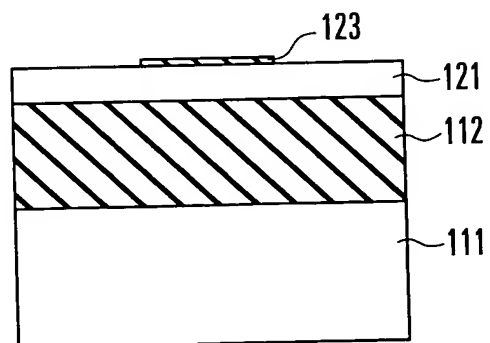
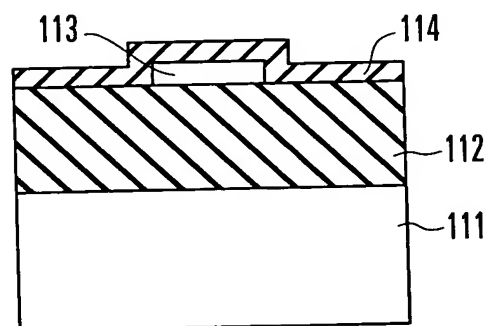


FIG. 10F



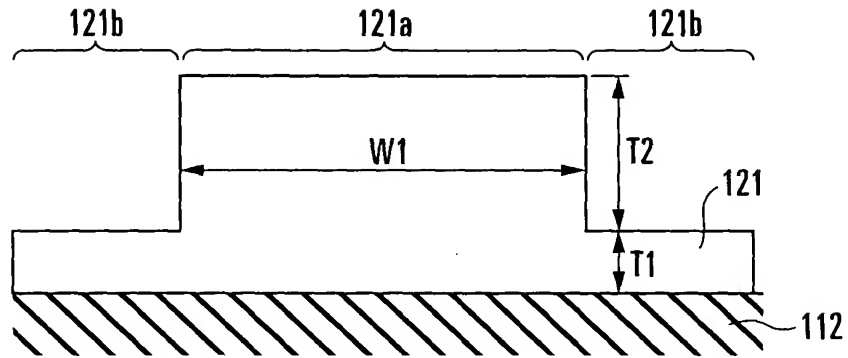


FIG. 11

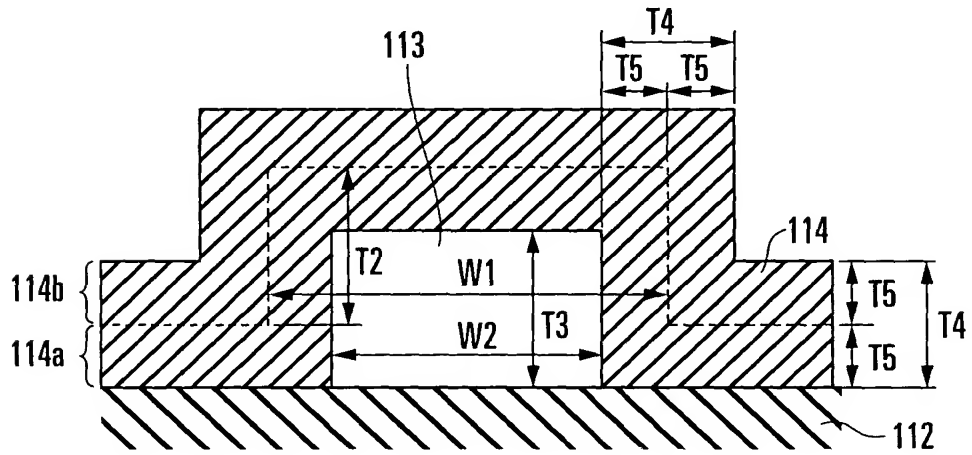


FIG. 12

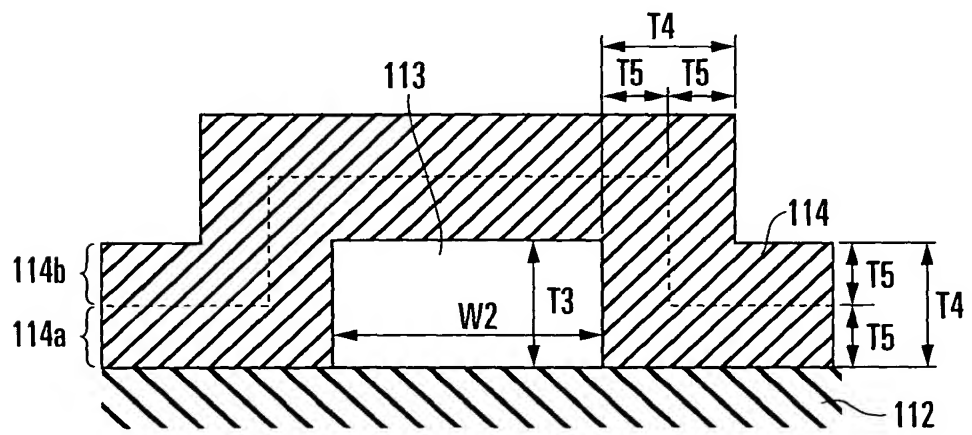


FIG. 13

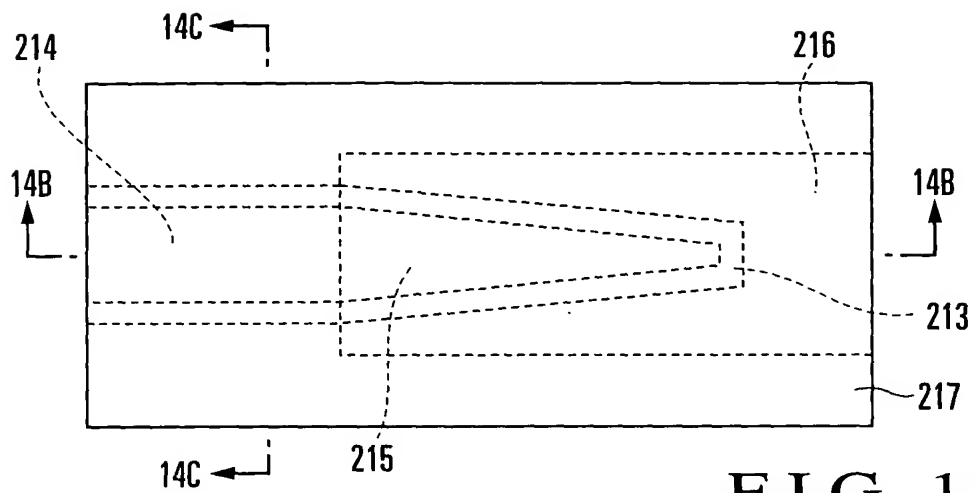


FIG. 14A

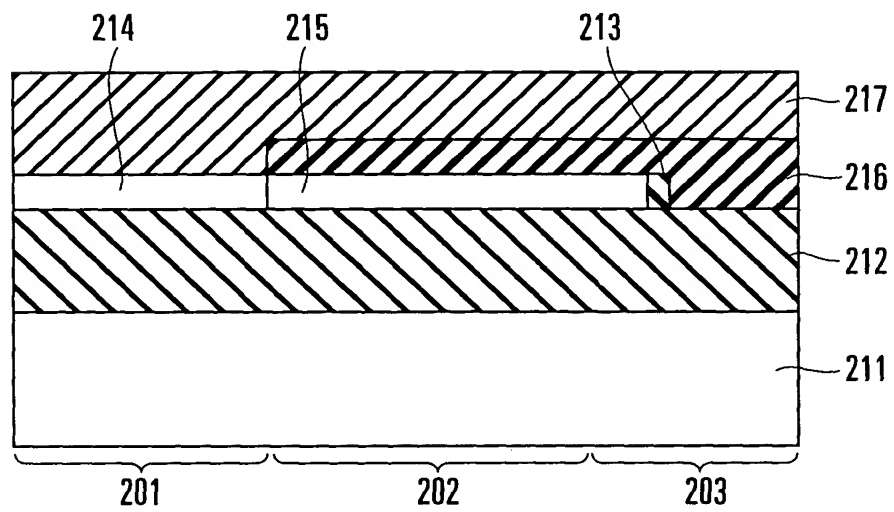


FIG. 14B

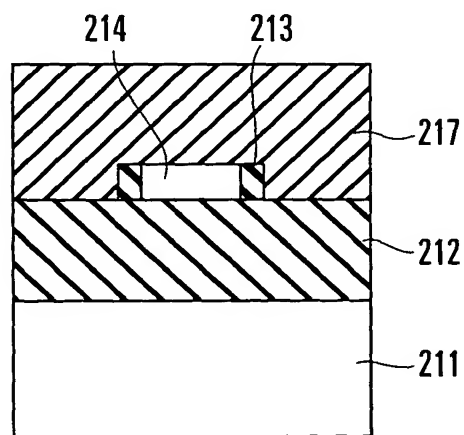


FIG. 14C

FIG. 15A

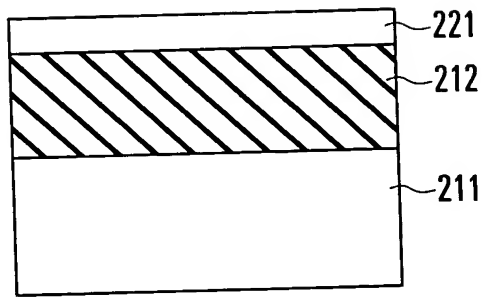


FIG. 15D

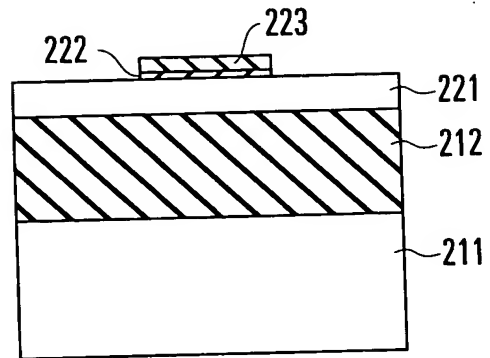


FIG. 15B

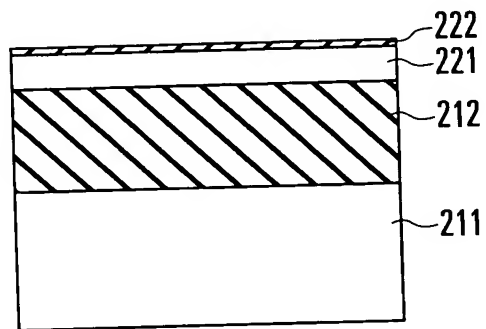


FIG. 15E

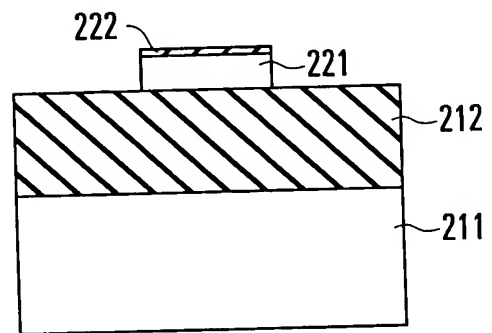


FIG. 15C

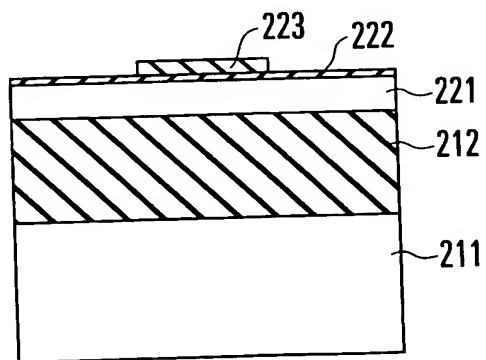


FIG. 15F

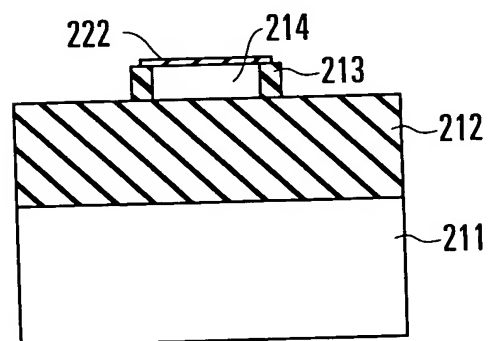


FIG. 15G

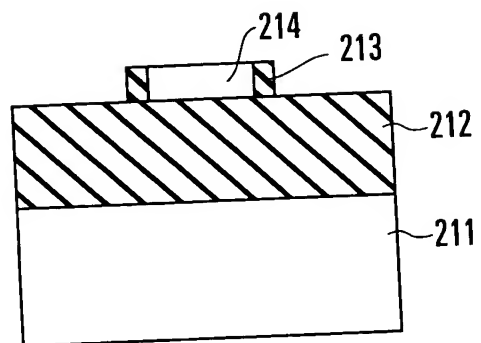


FIG. 15H

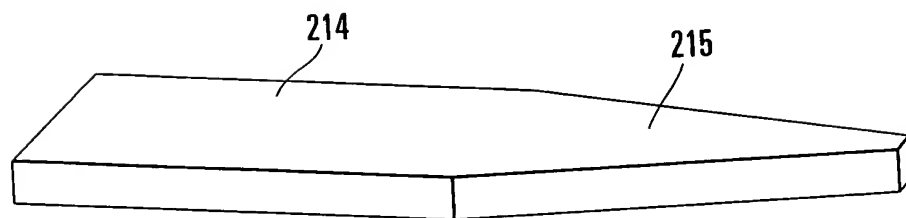
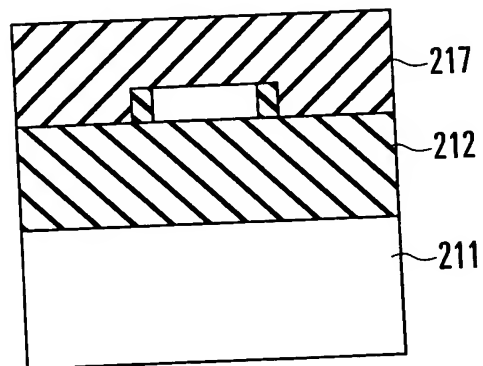


FIG. 16



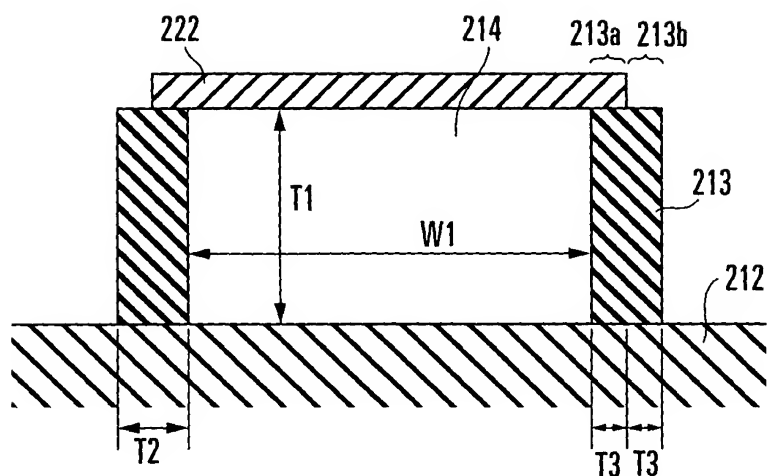


FIG. 17

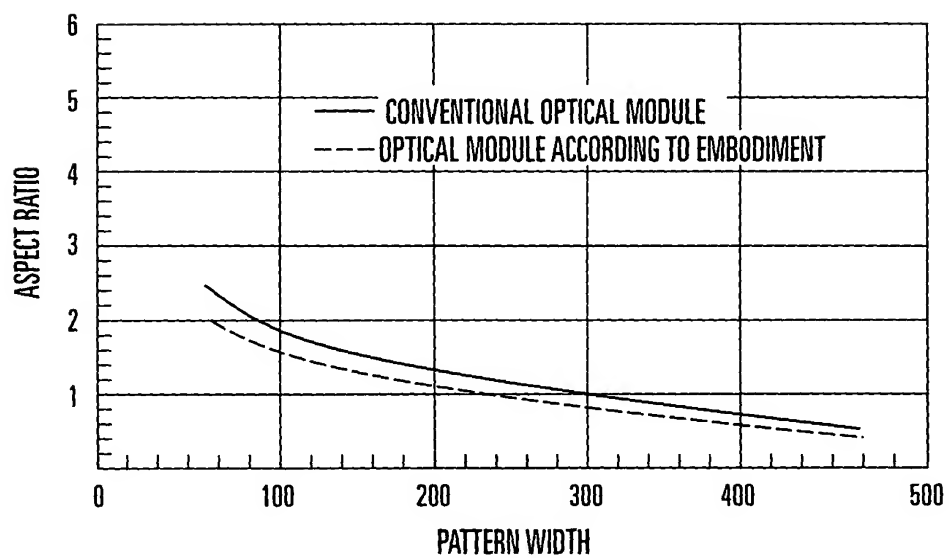


FIG. 18

FIG. 19A

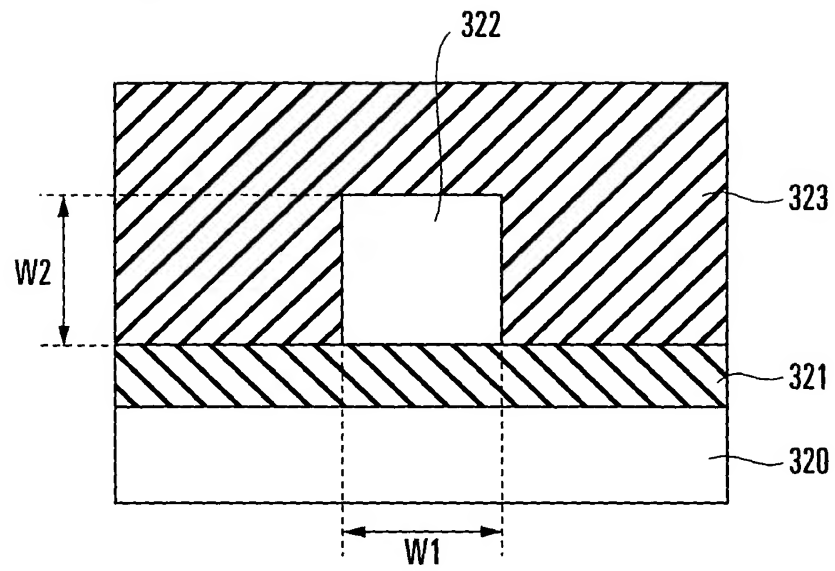
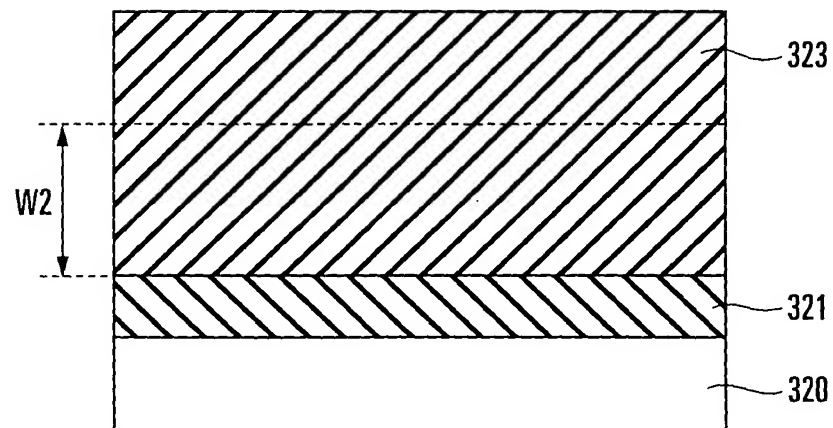


FIG. 19B



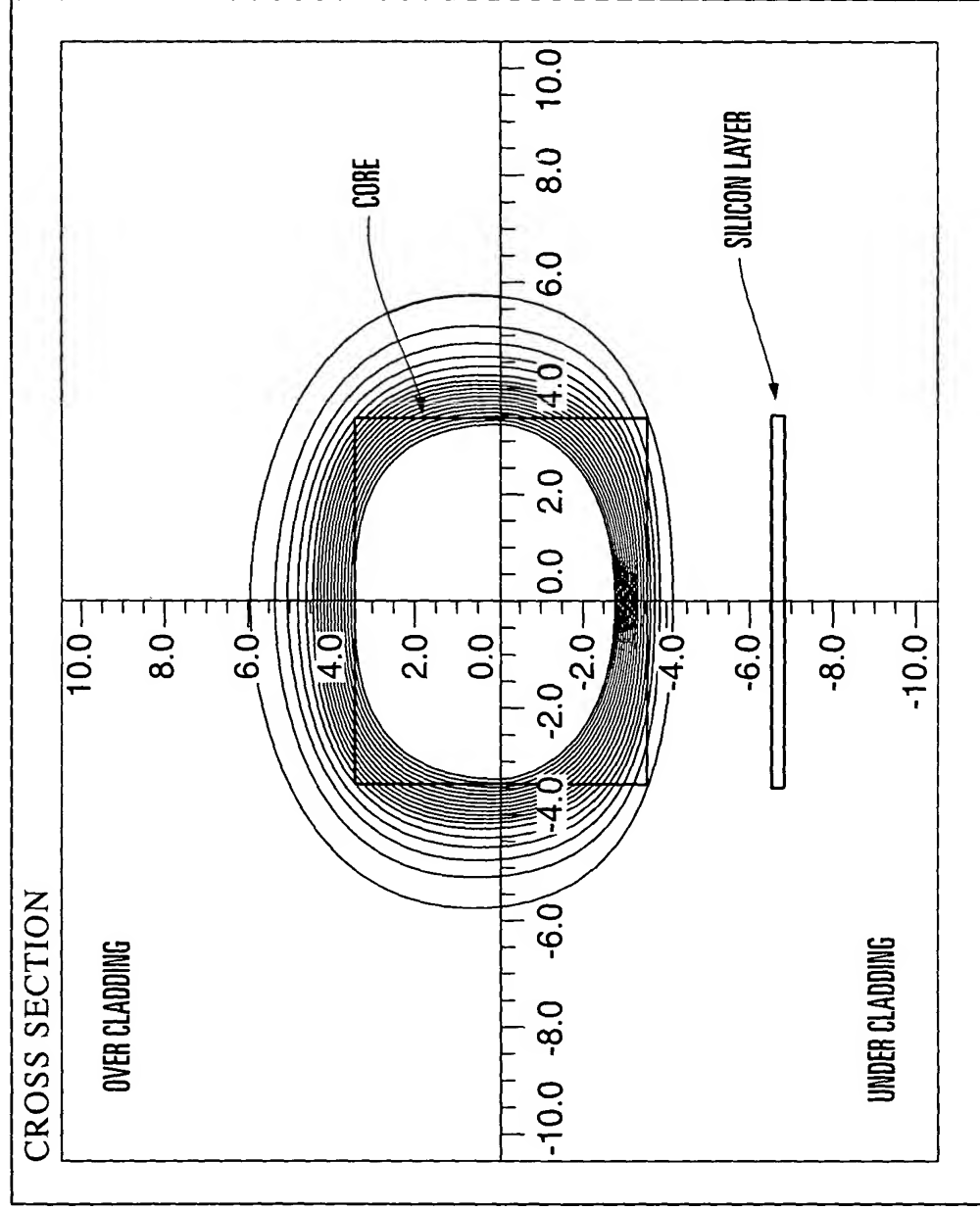


FIG. 20

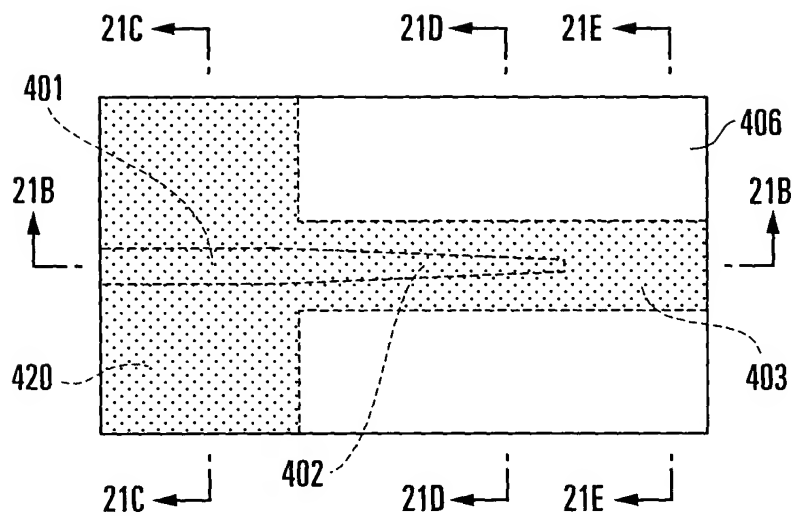


FIG. 21A

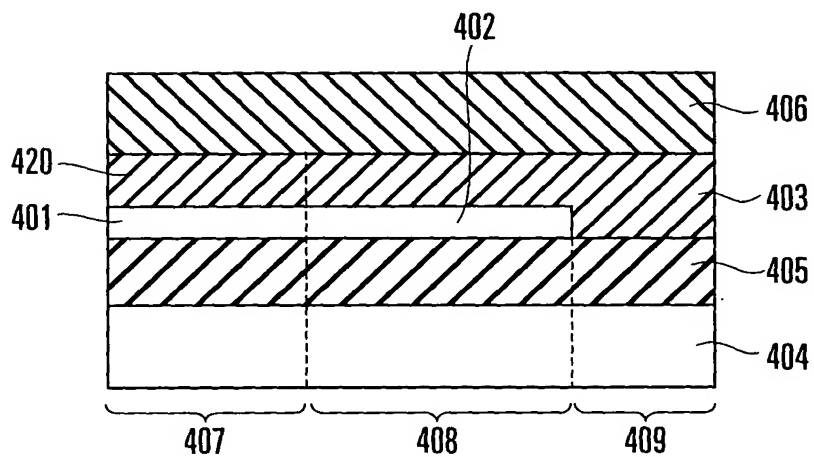


FIG. 21B

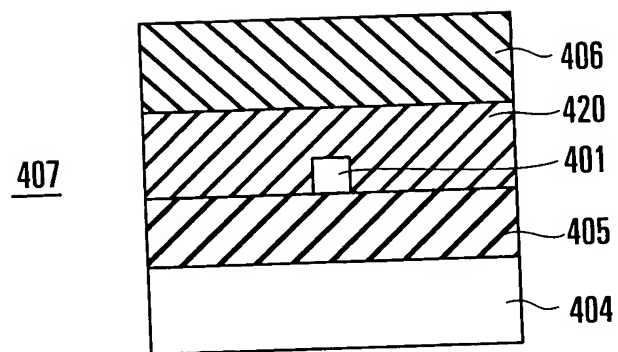


FIG. 21C

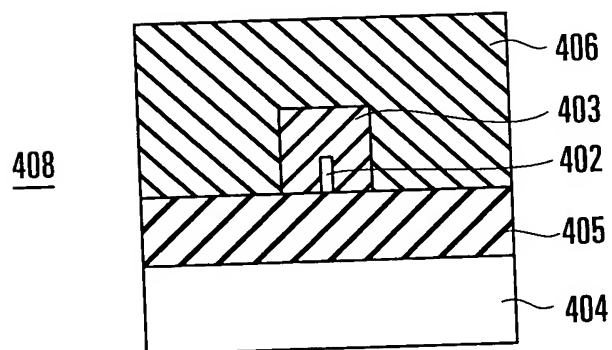


FIG. 21D

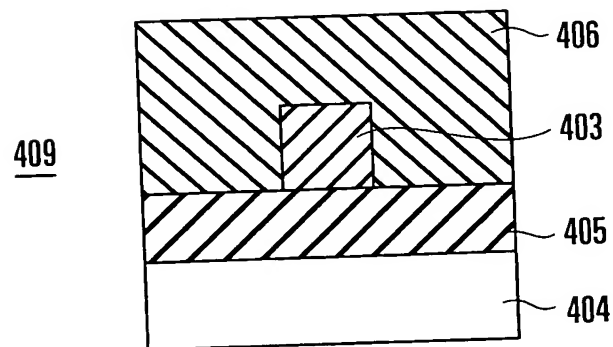


FIG. 21E

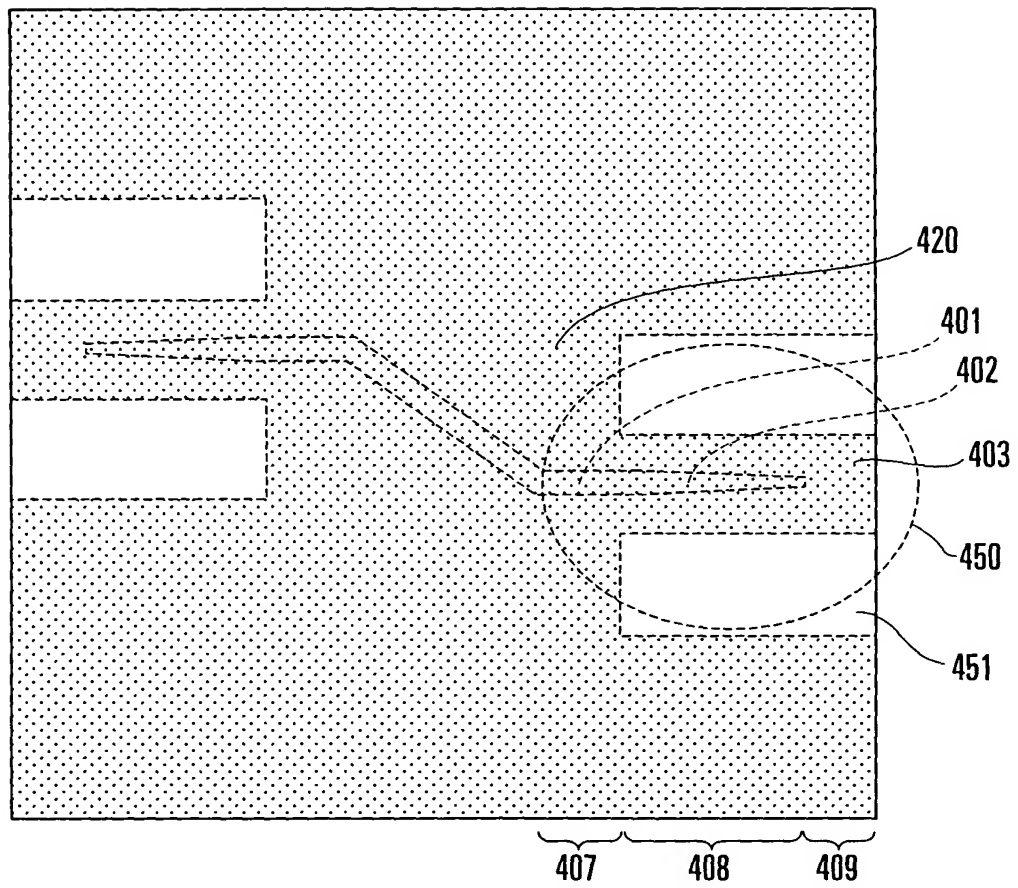
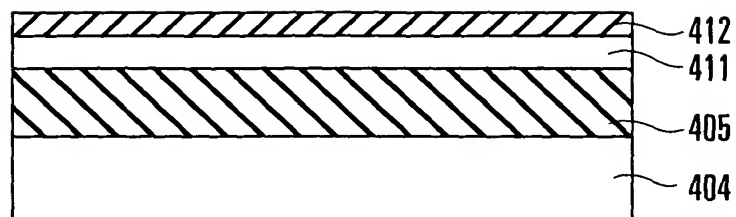
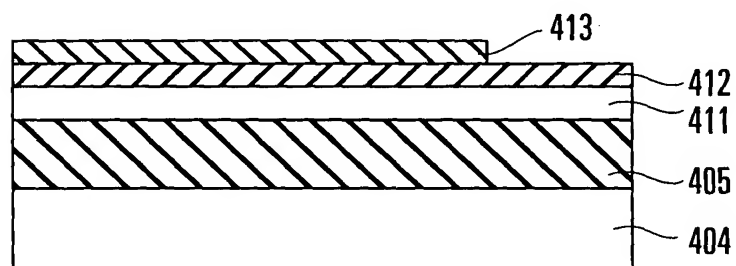


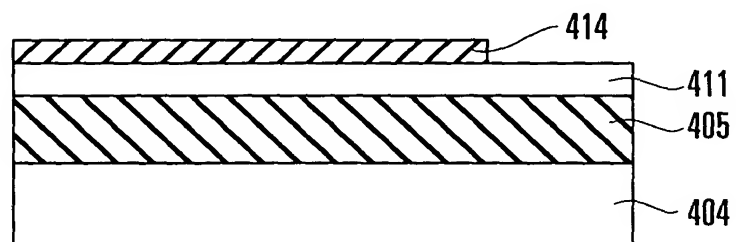
FIG. 22



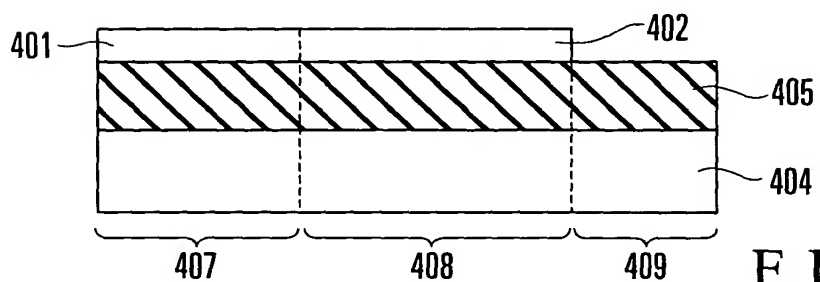
F I G. 23A



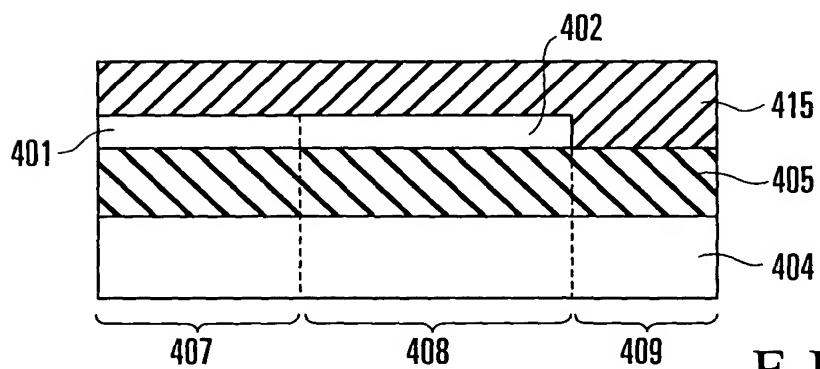
F I G. 23B



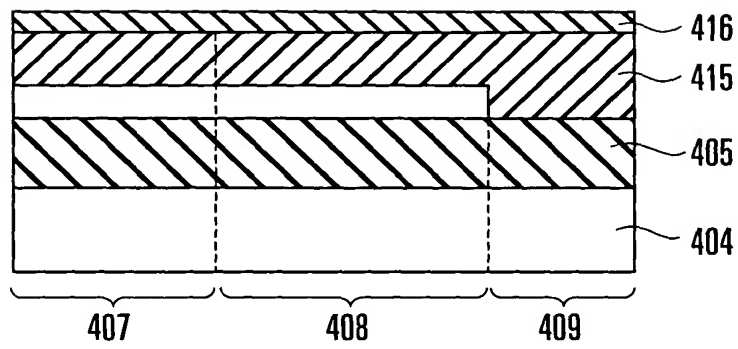
F I G. 23C



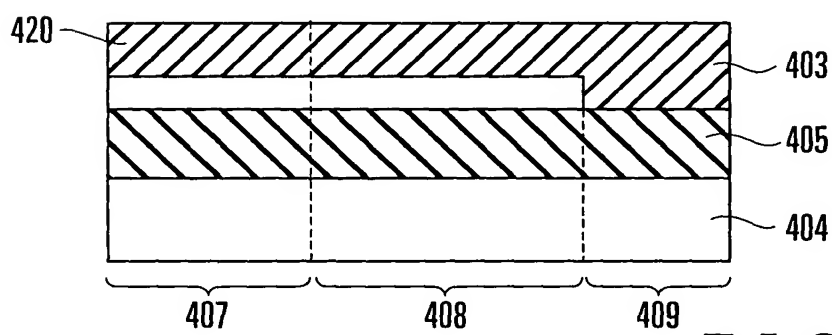
F I G. 23D



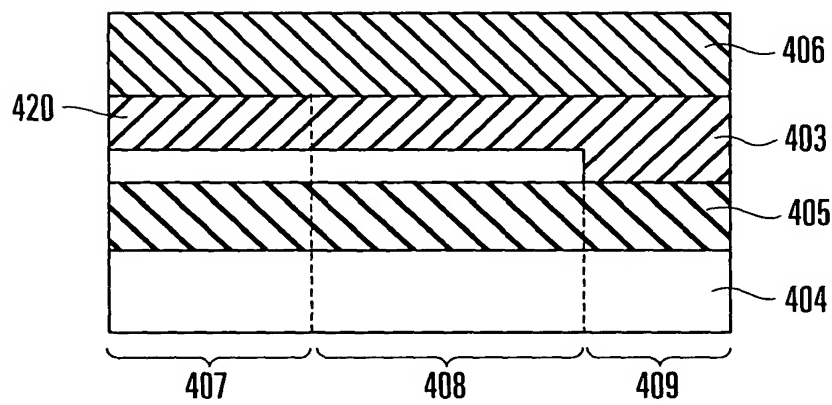
F I G. 23E



F I G. 23F



F I G. 23G



F I G. 23H



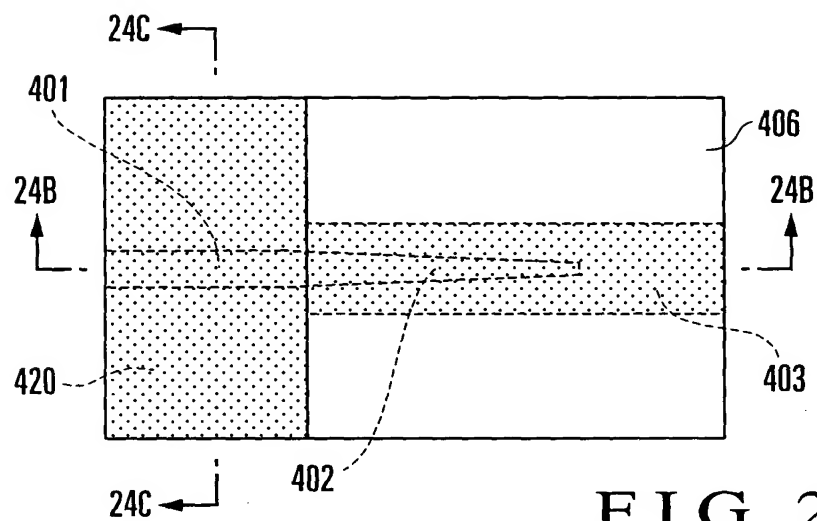


FIG. 24A

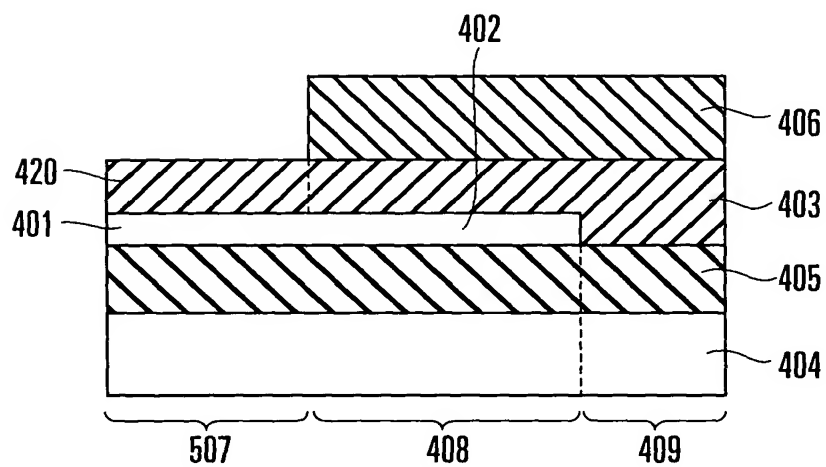


FIG. 24B

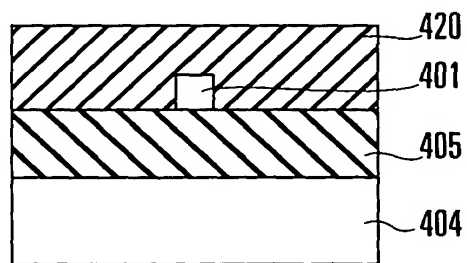
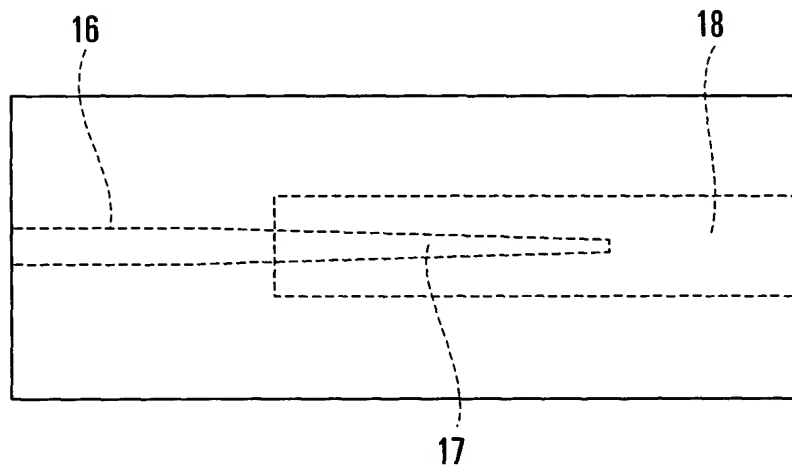
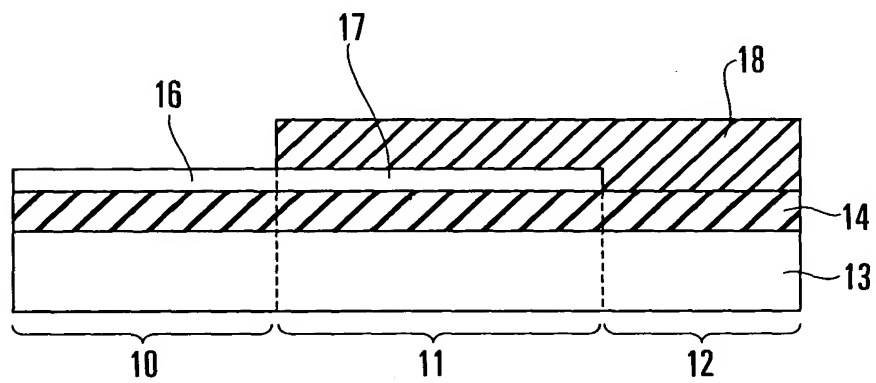


FIG. 24C



**FIG. 25A**  
**PRIOR ART**



**FIG. 25B**  
**PRIOR ART**